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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,756	02/27/2004	Guan Heng Liu	67,200-1199	8440

7590 10/19/2005

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EXAMINER

ZACHARIA, RAMSEY E

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/788,756

Applicant(s)

LIU ET AL.

Examiner

Ramsey Zacharia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 12 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I in the reply filed on 10 October 2005 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 17-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10 October 2005.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 5, 7, 9, 11, 13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomaru et al. (JP 11-329327 A).

Tomaru et al. teach a platen comprising a metal base, a silicone rubber layer, and a fluoro-resin film layer (paragraph 0009). The metal base corresponds to the instant support body, the silicone rubber layer corresponds to the instant resilient layer, and the fluoro-resin film layer corresponds to the instant particle-adherent layer. The fluoro-resin film layer may be formed of

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polytetrafluoroethylene (paragraph 0016). A primer (i.e. adhesive) may be deposited between the silicone rubber and fluoro-resin layers (paragraph 0018).

5. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Horton et al. (U.S. Patent 6,010,916).

Horton et al. teach an inert wafer comprising a tetrafluoroethylene resin sized to be identical to a blank silicon wafer that may contain a metal plate such that it will be identically sized and weighted as a production silicon wafer (column 2, line 64-column 3, line 4). The metal plate corresponds to the instant support body and the tetrafluoroethylene resin layer corresponds to the instant particle adherent layer.

6. Claims 1, 2, 5, 6, 9, 10, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin (U.S. Patent 6,159,773).

Lin teaches a silicon wafer 1 have deposited thereon elastomer layers **42-45** (Figure 9). The silicon wafer reads on the support body of the instant claims. The outermost elastomer layer **45** reads on the instant particle adherent layer since the claims do not recite any particular degree of particle adhesion. Since it is formed of an elastomer some particles, particularly hard, sharp particles, will penetrate the elastomer and become embedded. Interior elastomer layer(s) **42** and/or **43** read on the instant resilient layer. Interior elastomer layers **43** and/or **44** read on the instant adhesive layer since these layers act to adhere the outermost elastomer layer to the silicon wafer and innermost elastomer layer.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horton et al. (U.S. Patent 6,010,916).

Horton et al. teach all the limitations of claims 2 and 4-8, as outlined above, except for the use of a silicon wafer as the plate and the presence of an adhesive layer between the tetrafluoroethylene resin layer and the plate.

However, Horton et al. do teach that the inert wafer should be the same size and weight as a production silicon wafer. Therefore, it would be obvious to one skilled in the art to use a silicon wafer as the plate around which the tetrafluoroethylene resin is applied since the inert wafer is designed to be the same size and weight as a production silicon wafer.

Moreover, it would be obvious to employ an adhesive between the tetrafluoroethylene resin and the plate material to ensure that the inert tetrafluoroethylene resin does not delaminate from the plate material, potentially exposing the plate leading to equipment contamination during setup, testing, or adjustment.

Allowable Subject Matter

9. Claims 12 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter.

Claims 12 and 16 are directed to a particle removing wafer comprising: a silicon wafer, a resilient layer carried by the silicon wafer, an adhesive layer carried by the resilient layer, and a polytetrafluoroethylene layer carried by the adhesive layer.

Tomaru et al., Horton et al., and Lin represent the closest prior art. However, Tomaru et al. do not teach or fairly suggest silicon wafer as their base material. Horton et al. do not teach or fairly suggest the present of a resilient layer between their tetrafluoroethylene resin and plate. Lin does not teach or fairly suggest the use of polytetrafluoroethylene as the outermost layer such that it would be the layer having a particle-adherent surface.


Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (571) 272-1518. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached at (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramsey Zacharia
Primary Examiner
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